

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1-16. (Cancelled)

17. (Withdrawn) A radio unit comprising:

a radio circuit for down-converting a received radio signal to an intermediate-frequency signal or a base-band signal and up-converting an intermediate-frequency signal or base-band signal to be transmitted;

an oscillator circuit having a temperature characteristic and designed to generate a local oscillation signal for use in down-converting and up-converting signals in the radio circuit;

a temperature-detecting circuit for detecting an ambient temperature of the oscillator circuit; and

a temperature-compensating circuit comprising:

correction data storage means for storing correction data generated from the detection characteristic of the temperature-detecting circuit and the temperature characteristic of the oscillator circuit so as to correct a detection error contained in the detection characteristic and the temperature characteristic; and

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correction processing means for correcting the operation of the oscillator circuit on the basis of the ambient temperature detected by the temperature-detecting circuit and the composite correction data stored in the correction data storage means.

18. (Withdrawn) A radio unit comprising:

a radio circuit for down-converting a received radio signal to an intermediate-frequency signal or a base-band signal and up-converting an intermediate-frequency signal or base-band signal to be transmit;

an oscillator circuit having a temperature characteristic and designed to generate a local oscillation signal for use in down-converting and up-converting signals in the radio circuit;

a temperature-detecting circuit for detecting an ambient temperature of the oscillator circuit; and

a temperature-compensating circuit comprising:

first storage means for storing corrected temperature corresponding to the detected ambient temperature, generated to compensate detection errors, each being a difference between a value actually detected by the temperature-detecting means and a value expected from the detection characteristic of the temperature detecting circuit;

second storing means for storing an operation data of the oscillator circuit corresponding to a corrected temperature; and

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correction processing means for selectively reading, from the first storage means, a corrected temperature corresponding to the ambient temperature detected by the temperature detecting circuit, and for correcting the operation of oscillator circuit on the basis of the corrected temperature and the stored operation data of the oscillator circuit corresponding to the corrected temperature.

19. (Withdrawn) A radio unit comprising:

a radio circuit for down-converting a received radio signal to an intermediate-frequency signal or a base-band signal and up-converting an intermediate-frequency signal or base-band signal to be transmit;

an oscillator circuit having a temperature characteristic and designed to generate a local oscillation signal for use in down-converting and up-converting signals in the radio circuit;

a temperature-detecting circuit for detecting an ambient temperature of the oscillator circuit; and

a temperature-compensating circuit comprising:

first storage means for storing corrected temperatures each corresponding to the detected ambient temperature, generated on the basis of a difference between one representative value actually detected by the temperature-detecting circuit and a value corresponding to the representative value expected from the detection characteristic of the temperature-detecting circuit;

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second storing means for storing an operation data of the oscillator circuit corresponding to a corrected temperature; and

correction processing means for selectively reading, from the first storage means, a corrected temperature corresponding to the ambient temperature detected by the temperature detecting circuit, and for correcting the operation of oscillator circuit on the basis of the corrected temperature and the stored operation data of the oscillator circuit corresponding to the corrected temperature.

20. (Withdrawn) A radio unit comprising:

a radio circuit for down-converting a received radio signal to an intermediate-frequency signal or a base-band signal and up-converting an intermediate-frequency signal or base-band signal to be transmit;

an oscillator circuit having a temperature characteristic and designed to generate a local oscillation signal for use in down-converting and up-converting signals in the radio circuit;

a temperature-detecting circuit for detecting an ambient temperature of the oscillator circuit; and

a temperature-compensating circuit comprising:

first storage means for storing difference data representing a difference between one representative value actually detected by the temperature-detecting

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circuit and a value corresponding to the representative value and expected from the detection characteristic of the temperature detecting circuit;

second storing means for storing an operation data of the oscillator circuit corresponding to a corrected temperature; and

correction processing means for obtaining a corrected temperature on the basis of the detected ambient temperature and the difference data stored in the first storage means, said corrected temperature corresponding to the ambient temperature detected by the temperature detecting circuit, and for correcting the operation of oscillator circuit on the basis of the corrected temperature and the stored operation data of the oscillator circuit corresponding to the corrected temperature.

21. (Withdrawn) A radio unit comprising:

a radio circuit for down-converting a received radio signal to an intermediate-frequency signal or a base-band signal and up-converting an intermediate-frequency signal or base-band signal to be transmit;

an oscillator circuit having a temperature characteristic and designed to generate a local oscillation signal for use in down-converting and up-converting signals in the radio circuit;

a temperature-detecting circuit for detecting an ambient temperature of the oscillator circuit; and

a temperature-compensating circuit comprising:

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first storage means for storing temperatures differences obtained by dividing a range of temperatures to be detected, into a plurality of temperature sub-ranges, each difference between a representative value actually detected by the temperature-detecting circuit in one temperature sub-range and a value corresponding to the representative value and expected from the detection characteristic of the temperature-detecting circuit;

second storing means for storing an operation data of the oscillator circuit corresponding to a corrected temperature; and

correction processing means for generating, a corrected temperature corresponding to the detected ambient temperature detected on the basis of the stored temperature difference corresponding to the detected ambient temperature, and for correcting the operation of oscillator circuit on the basis of the corrected temperature and the stored operation data of the oscillator circuit corresponding to the corrected temperature.

22. (Withdrawn) A radio unit comprising:

a radio circuit for down-converting a received radio signal to an intermediate-frequency signal or a base-band signal and up-converting an intermediate-frequency signal or base-band signal to be transmit;

an oscillator circuit having a temperature characteristic and designed to generate a local oscillation signal for use in down-converting and up-converting signals in the radio circuit;

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a temperature-detecting circuit for detecting an ambient temperature of the oscillator circuit; and

a temperature-compensating circuit comprising:

first storage means for storing difference data items obtained by dividing a range of temperatures to be detected, into a plurality of temperature sub-ranges and by obtaining differences, each between a representative value actually detected by the temperature-detecting circuit and a value corresponding to the representative value and expected from the detection characteristic of the temperature-detecting circuit;

second storing means for storing an operation data of the oscillator circuit corresponding to a corrected temperature; and

correction processing means for obtaining a corrected temperature on the basis of the ambient temperature detected by the temperature detecting circuit and the difference data item stored in the first storage means and corresponding to the temperature sub-range in which the ambient temperature detected falls, and for correcting the operation of oscillator circuit on the basis of the corrected temperature and the stored operation data of the oscillator circuit corresponding to the corrected temperature.

23. (New) A temperature compensating circuit for compensating an operation of an electronic circuit having a temperature characteristic in accordance with an ambient temperature of the electronic circuit, comprising:

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temperature detecting means for detecting the ambient temperature of the electronic circuit; and

temperature compensating control means comprising:

first storage means for storing corrected temperatures each of which corresponds to one of the detected ambient temperatures, the detected ambient temperatures being within a temperature range which is to be corrected and which is a detection characteristic of the temperature detecting means, and said corrected temperatures being set at values for correcting detection errors in the detected ambient temperatures;

second storage means for storing an operation correction data prepared for correcting a temperature characteristic of the electronic circuit; and

correction processing means for selectively reading, from the first storage means, a corrected temperature corresponding to the ambient temperature detected by the temperature detecting means, and for correcting the operation of electronic circuit on the basis of the corrected temperature and the operation correction data stored in the second storing means.

24. (New) The temperature compensating circuit according to claim 23, wherein said electronic circuit is an oscillator circuit for generating a reference oscillation frequency.

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25. (New) A temperature compensating circuit for compensating an operation of an electronic circuit having a temperature characteristic in accordance with an ambient temperature of the electric circuit, comprising:

temperature detecting means for detecting the ambient temperature of the electronic circuit; and

temperature compensating control means comprising:

first storage means for storing corrected temperatures each of which corresponds to one of the detected ambient temperatures, said corrected temperatures being set at values for correcting detection errors in the detected ambient temperatures on the basis of a difference between a measure temperature measured with respect to a representative temperature and an expectation temperature expected with respect to the representative temperature, said representative temperature being a temperature within a temperature range which is to be corrected and which is a detection characteristic of said temperature detecting means;

second storage means for storing an operation correction data prepared for correcting a temperature characteristic of the electronic circuit; and

correction processing means for selectively reading, from the first storage means, a corrected temperature corresponding to the ambient temperature detected by the temperature detecting means, and for correcting the operation of electronic circuit on the basis of the corrected temperature and the operation correction data stored in the second storing means.

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26. (New) The temperature compensating circuit according to claim 25, wherein said electronic circuit is an oscillator circuit for generating a reference oscillation frequency.

27. (New) An electronic apparatus comprising:

an electronic circuit having a temperature characteristic and designed for performing a predetermined operation;

a temperature-detecting means for detecting an ambient temperature of the electronic circuit; and

a temperature compensation circuit comprising:

first storage means for storing corrected temperatures each of which corresponds to one of the detected ambient temperatures, the detected ambient temperatures being within a temperature range which is to be corrected and which is a detection characteristic of the temperature detecting means, and said corrected temperatures being set at values for correcting detection errors in the detected ambient temperatures;

second storage means for storing an operation correction data prepared for correcting a temperature characteristic of the electronic circuit; and

correction processing means for selectively reading, from the first storage means, a corrected temperature corresponding to the ambient temperature detected by the temperature detecting means, and for correcting the operation of electronic circuit on the basis of the corrected temperature and the operation correction data stored in the second storing means.

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28. (New) The electronic circuit according to claim 27, wherein said electronic circuit is an oscillator circuit for generating a reference oscillation frequency.

29. (New) An electronic apparatus comprising:

an electronic circuit having a temperature characteristic and designed for performing a predetermined operation;

a temperature-detecting means for detecting an ambient temperature of the electronic circuit; and

a temperature compensation circuit comprising:

first storage means for storing corrected temperatures each of which corresponds to one of the detected ambient temperatures, said corrected temperatures being set at values for correcting detection errors in the detected ambient temperatures on the basis of a difference between a measure temperature measured with respect to a representative temperature and an expectation temperature expected with respect to the representative temperature, said representative temperature being a temperature within a temperature range which is to be corrected and which is a detection characteristic of said temperature detecting means;

second storage means for storing an operation correction data prepared for correcting a temperature characteristic of the electronic circuit; and

correction processing means for selectively reading, from the first storage means, a corrected temperature corresponding to the ambient temperature detected by the temperature detecting means, and for correcting the operation of electronic circuit

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on the basis of the corrected temperature and the operation correction data stored in the second storing means prepared for correcting a temperature characteristic of the electronic circuit .

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30. (New) The electronic compensating circuit according to claim 29, wherein said electronic circuit is an oscillator circuit for generating a reference oscillation frequency.

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